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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/607,251	06/25/2003	Michael E. DeRosa	SP02-142	4975

22928 7590 10/20/2006

CORNING INCORPORATED
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EXAMINER	
VANOY, TIMOTHY C	

ART UNIT	PAPER NUMBER
1754	

DATE MAILED: 10/20/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/607,251	DEROSA ET AL.	
	Examiner	Art Unit	
	Timothy C. Vanoy	1754	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *19 September 2006*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-34 and 78-84* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-34 and 78-84* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *25 June 2003* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☒ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Oath/Declaration

The oath or declaration is defective. A new oath or declaration in compliance with 37 CFR 1.67(a) identifying this application by application number and filing date is required. See MPEP §§ 602.01 and 602.02.

> The oath or declaration is defective because the oath sets forth the filing date of the provisional application is June 25, 2003. It appears that the filing date of this non-provisional application is June 25, 2003 and the filing date of the provisional application is June 25, 2002.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-34 and 78-84 are again rejected under 35 U.S.C. 102(e) as being anticipated by U. S. Patent 6,468,941 B1 to Bortun et al.

Col. 1 lines 25-32 in U. S. Patent 6,468,941 B1 discloses that the oxygen storage ability of CeO_2 arises from the facile nature of the Ce^{4+}/Ce^{3+} redox reaction. The oxidation of Ce_2O_3 to CeO_2 builds up oxygen reserve. *The disclosure set forth in col. 1 lines 25-32 in U. S. Patent 6,468,941 B1 fairly suggests that Ce_2O_3 can react with and remove oxygen out of an atmosphere.* Col. 2 lines 10-17 in U. S. Patent 6,468,941 B1

discloses that in Ce-Zr based solid solutions the bulk Ce is redox active, and these materials are referred to OIC/OS type materials because their function involves oxygen storage. Col. 3 lines 19-30 reports that the oxygen storage material comprises: up to 95 mole % zirconium; about 0.5 to 40 mole % cerium; about 0.5 to 15 mole % R, where R is a rare earth metal, an alkaline earth metal or a combination of these two and from 0.5 to 15 mole % niobium. The oxygen storage material may also include a precious metal component: please see col. 3 lines 43-44.

Example 1 in col.s 6 and 7 reports what appears to be the same method for preparing the oxygen storage material, comprising:

preparing a solution of nitrate salts of the oxygen storage metallic components;

adding the solution of an aqueous solution of ammonium hydroxide to precipitate out a mixed hydrous oxide;

filtering out the precipitate and washing it with a liquid, and

calcining the precipitate to produce the mixed oxide, oxygen storage material.

Response to Arguments

Applicants' arguments filed June 6, 2006 have been fully considered but they are not persuasive.

a) *The applicants argue that the sorbent material of applicants' claim 1 contains Ce_2O_3, however the reference (i. e. U. S. Patent 6,468,941 B1) fails to specifically disclose that the material disclosed therein has the oxygen-absorbing capability.*

Applicants' attention is directed to col. 1 lns. 29-33 in U. S. Patent 6,468,941 B1 where it is disclosed that the oxidation of the Ce_2O_3 to CeO_2 builds up oxygen reserve, and mention is made of "facile oxygen storage". The disclosure in col. 1 lns. 29-33 in U. S. Patent 6,468,941 B1 clearly teaches that Ce_2O_3 reacts with and removes oxygen out the vicinity of its environment.

b) *The applicants argue that the disclosure of Bortun et al. shows that the material therein contains CeO_2 rather than Ce_2O_3.*

The applicants' Ce_2O_3 and its ability to react with oxygen is disclosed in col. 1 lines 29-33 in U. S. Patent 6,468,941 B1. Note that the "oxidation" referred to in col. 1 lines 29-33 is the reaction with and removal of oxygen because the product of oxidation is CeO_2.

c) *The applicants submit that for essentially the same reasons given above in connection with claim 1, Bortun et al. does not disclose, expressly or inherently, a process for making the sorbent material of the present invention.*

This submission is not persuasive for the reasons given in the 35USC102 rejection, and also for the reasons set forth in sub-paragraphs a) and b) in this portion of the Office Action.

Applicants' arguments filed Sept. 19, 2006 have been fully considered but they are not persuasive.

a) *The applicants argue that the sorbent of applicants' claim 1 contains Ce_2O_3, however U. S. Patent 6,468,941 B1 fails to disclose that the material disclosed therein has oxygen-absorbing capability.*

The disclosure set forth in col. 1 lns. 29-32 in U. S. Patent 6,468,941 B1 that oxidation of Ce_2O_3 into CeO_2 builds up oxygen reserve, and that such an oxygen storage-oxygen release ability is important. . . is a fair teaching that the Ce_2O_3 of U. S. Patent 6,468,941 B1 is an oxygen sorbent, in the manner required by the applicants' claims.

b) *The applicants argue that the disclosure of Bortun et al. shows that the material contains CeO_2 rather than Ce_2O_3. As taught in the present application, in order for the material of the present invention to have oxygen sorbing capacity, the Ce must be in the +3 valency. CeO_2 certainly can not and would not further absorb oxygen present in any atmosphere. CeO_2 would rather function as an oxidizing agent or an O_2 supplying agent. Therefore, one skilled in the art would have serious doubt that the material of Bortun et al. can be used as an effective oxygen sorbent material.*

The disclosure set forth in col. 1 lns. 29-32 in U. S. Patent 6,468,941 B1 that oxidation of Ce_2O_3 to CeO_2 builds up oxygen reserve, and such a facile oxygen storage - oxygen release ability is important fairly teaches that Ce_2O_3 can function as a reversible oxygen sorbent which is all the applicants' claims require.

c) *The applicants argue that the examiner appears to have the view that Example 1 in Bortun et al. results in the sorbent material of the present invention. Applicant submits that for essentially the same reasons given above in connection to claim 1,*

Bortun et al. does not disclose, expressly or inherently, a process for making the sorbent material of the present invention.

The argument is not persuasive for the reasons set forth in sub-paragraphs (a) and (b) set forth above.

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Timothy C. Vanoy whose telephone number is 571-272-8158. The examiner can normally be reached on Mon-Fri 8-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stanley Silverman, can be reached on 571-272-1358. The fax phone

number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Timothy C Vanoy
Primary Examiner
Art Unit 1754

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